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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,866

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EXAMINER

ANDERSON, JERRY W

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,866	Applicant(s) CURUTCHET FERREIRA ET AL.	
	Examiner JERRY W. ANDERSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Examiner acknowledges the receipt of the Applicant's Amendment, mailed 10/19/2009. Claims 1-3 pending, claim 1 amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shults, G.W., et al., (3,845,227) in view of Katayama, H., et al., (5,939,112)

5. Shults, G.W., et al., '227) discloses:

- a. Muscle portions of the beef may be deboned and processed, (line 44, col. 2, '227)

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- b. Brine 1815 gms NaCl, 20 gms sodium nitrite, in 8,650 gms water, (line 30-35, col. 3, '227)
 - c. Brine 15 % by wt of meat, (line 57, col. 1, '227)
 - d. Cutting of lean muscle meat . . . carcass of beef . . . deboning . . . removal of fat . . . into chunks, (lines 51-54, col. 2, '227)
 - e. Beef stuffed into flexible film containers . . . heat in water at about 90-100°C, 75- 100 minutes (lines 2-3, col. 3, '227)
 - f. hermetically packaging in second containers, (lines 4-6, col. 3, '227)
 - g. Freeze to -25°C ±20°C, (line 17, col. 3, '227)
 - h. Sterilize . . . high energy ionizing radiation . . . at 2.0-6.0 megarads, (lines 18-21, col. 3, '227)
 - i. Sodium chloride . . . 0.5%-4% in final product, (lines 38-39, col. 3, '227)
 - j. Sodium nitrate and sodium nitrite may vary from about 10 % to 100 % of the amounts allowed by USDA regulations, . . . 500 ppm nitrate and 200 ppm nitrite, (lines 43-48, col. 3, '227)
6. Katayama ('112) discloses:
- k. Providing process meat with improved water retention capability . . . improved meat quality . . . produce meat efficiently and in a shorter time, (lines 31-45, col.1, '112)
 - l. Impregnation of the meat with the salt solution . . . by injection of the salt solution into the meat through an injector, spraying the meat with the salt solution, immersing the meat in the salt solution. . . coating the meat . . .

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kneading or mixing the meat in the salt solution with a mixer, (lines 46-58, col. 11, '112)

m. Tumbling under reduced pressure, the meat is tumbled at from 3 rpm to 30 rpm under pressure ranging from about 0 mm Hg to 760 mm Hg . . .

temperature ranging from about 1°C to 10°C, for 1 minute to 10 hours, (lines 31-35, col. 15, '112)

7. Regarding claims 1 and 3, Shults discloses the claimed invention, including cutting of lean muscle meat from carcass of beef, deboning, removing fat, into chunks, (lines 51-54, col. 2, '227) using a brine 1815 gms NaCl, 20 gms sodium nitrite, in 8,650 gms water, (line 30-35, col. 3, '227), at 15 % wt percent of the meat, (line 14, col. 4, '227) after brining, place meat in film container cooking in water at 90-100°C, (lines 2-3, col. 3, '227), hermetically packaging in second containers, (lines 4-6, col. 3, '227) freezing to -25°C ±20°C, (line 17, col. 3, '227) sterilize with high energy ionizing radiation at 2.0-6.0 megarads, (lines 18-21, col. 3, '227), but lack injection of the brine, and tumbling meat for up to 24 hours, under low pressure and refrigeration. Katayama teaches injection of brine into meat, (lines 46-58, col. 11, '112) and tumbling under reduced pressure, at from 3 rpm to 30 rpm under pressure ranging from about 0 mm Hg to 760 mm Hg, temperature ranging from about 1°C to 10°C, for 1 minute to 10 hours. (lines 31-35, col. 15, '112)

8. Shults and Katayama are analogous art in that all are concerned with the preparation of meat for human consumption.

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9. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the methodology of Shults by the use of the injection of brine, the refrigeration and vacuum tumbling of Katayama, in order to provide processed meat with improved water retention capability, improved meat quality, and that produces meat efficiently and in a shorter time, (lines 31-45, col.1, '112)

10. One of ordinary skill in the art would know that 20 megarads is equivalent to 20 kGys.

11. One of ordinary skill in the art would find that the procedure of Shults of placing the meat in film container and heating at 90-100° for 75-100 minutes performs substantially the same result in an equivalent manner as the applicant's heating to 70-85°C and holding for a time of 15-30 minutes.

12. One of ordinary skill in the art would find it obvious that the transfer of the cooked meat from one container to a secondary container (lines 4-6, col. 3, '227) would involve some measure of cooling of the meat, similar to the procedure of the instant application.

13. Regarding claim 2, Shults, and Katayama disclose the claimed invention including, the brine solution is about 20.2 % NaCl, and the sodium nitrite is about 0.2 %, and that the salt concentration may vary from 0.5%-4% in final product, (lines 38-39, col. 3, '227) and the sodium nitrate and sodium nitrite may vary from about 10 % to 100 % of the amounts allowed by USDA regulations, 500 ppm nitrate and 200 ppm nitrite, (lines 43-48, col. 3, '227)

Response to Amendment

14. The applicant having submitted a substitute abstract, the objection thereunto is withdrawn

15. The applicant having amended claim 1, the 35 USC § 112 rejections thereunto is withdrawn.

Response to Arguments

16. Applicant's arguments, see ¶ 3, pg 2, applicants remarks, filed 10/19/2009, with respect to the rejection of claim 1 under Seiffhart and Jespersen, regarding the pressure and temperature of the tumbler have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Katayama, et al.

17. Applicant's remaining arguments filed 10/19/2009 have been fully considered but they are not persuasive.

18. Regarding the brine concentration and the amount of brine in the meat product, (¶1, pg 3, applicant's remarks) the applicant states that the brine contains 19.5 % sodium chloride and that a maximum of 20 percent of the injected meat is due to brine. This gives a maximum of about 4 % sodium chloride in the meat. Shultz states that the range of sodium chloride in the meat may vary from 0.5 % to 4 %. (lines 37-39 col. 3, '227) Using the applicant calculation of sodium chloride in the prior art brine of 13.3 % sodium chloride, the amount of brine in the meat varies from about 4 % to about 30 %. Overlapping the range of brine injected into the meat stated in claim 1. Although the

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brine concentrations are slightly different, the amount of salt in the finished product, in the prior art, overlaps the amount used in the instant application, and the amount of brine used likewise overlaps the range of the instant application. It would have been obvious to one of ordinary skill in the art where the prior art ranges and concentrations in the prior art overlap the ranges and concentrations of the instant application, that said ranges and concentrations are obvious.

19. Regarding the radiation exposure, (¶ 1, pg. 2 applicant's remarks) the applicant states that the instant application uses significantly less radiation, 15 kGy vs 20 kGy (prior art). However, Claim 1(g) states "a minimum total dose of 15kGy". The prior art is above the minimum specified. Where the claimed ranges overlap or lie inside ranges disclosed by prior art a prima facie case of obviousness exists. MPEP 2144.05

20. Regarding the cooking time and temperature, (¶ 2, pg. 2, applicant's remarks) the applicant states that the instant application's cooking time is much shorter than that of the prior art. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (cooking time) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). . The 15-30 minutes refers to the holding time once the meat reaches an internal temperature of 70-85°C. There is no mention of the time required to reach the desired temperature. This time to reach the desired temperature will be dependent upon the size and shape of the piece of meat. The total time for the cooking of the meat

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is unknown, and therefore one of ordinary skill in the art would find it obvious that the cooking time of the prior art would fall within the cooking time of the instant application.

21. As to the temperature, the temperature range (§2, pg 2, applicants remarks) of the instant application, 70-85°C is close to that of the prior art 90°C-100°C, such that, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) MPEP 2144.05

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY W. ANDERSON whose telephone number is (571)270-3734. The examiner can normally be reached on 7 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. SAYALA/
Primary Examiner, Art Unit 1794

Jwa